

CITY OF LODI

COUNCIL COMMUNICATION

AGENDA TITLE: Turner Road - Lodi Lake Park Traffic Study, Continuation From March 6

Meeting

MEETING DATE: May 15, 1991

PREPARED BY:

Public Works Director

RECOMMENDED ACTION: That the City Council amend the Traffic Resolution #87-163 to approve the Turner Road speed zone survey from the west City limits to Ham Lane and review the flashing beacon plan and cost

estimate and take the appropriate action.

BACKGROUND INFORMATION: As requested by City Council at the March 6 meeting, Public Works staff has performed a speed zone survey on Turner

Road at Lodi Lake Park and prepared a plan and cost estimate for an overhead flashing beacon at the crosswalk

in front of Lodi Lake Park. The March 6 Council Communication text is attached as additional information.

The 145' "No Parking" zone west of the park exit (for added visibility) was installed as requested by Council at the March 6 meeting.

Attached as Exhibit A is the speed zone survey for Turner Road from the west City limits to Ham Lane. Staff's recommendation is to reduce the existing speed limit between Mills Ayenue and Ham Lane from 40 mph to 35 mph. The reason for this speed limit reduction is because the accident rate in this segment has nearly doubled from 2.30 to 4.10 ACC/MVM since the 1989 speed survey. This rise in accident rate is not apparent to drivers and is therefore a valid reason to reduce the speed limit. The narrative attached to the speed zone survey provides additional information regarding this survey.

The plan for the overhead flashing beacon is attached as Exhibit B. The flashing beacons would be mounted on a mast arm extending over Turner Road. Mounted on this overhead mast arm will be one pedestrian crossing sign and one flashing beacon for each direction of traffic. The easterly crosswalk will also be removed to channelize pedestrians to the crosswalk with the flashing beacon. This is the crosswalk that met flashing beacon warrants. The visibility of this crosswalk will be improved by adding diagonal striping through the crosswalk. The westbound post-mounted pedestrian sign and pavement legend will be relocated to the remaining crosswalk. Visibility of the overhead flashing beacon at the proposed location appears to be adequate; however, upon installation staff will determine if some tree trimming will be necessary. The cost estimate for this installation is approximately \$5,000.

APPROVED:

THOMAS A. PETERSON City Manager

Turner Road May 15, 1991 Page 2

The future traffic signal at Turner Road and Mills Avenue, is planned for installation under the railroad crossing improvement program. While funding is available, the schedule will depend on the Southern Pacific railroad doing their portion of the work. This signal will assist in providing gaps in traffic for pedestrian activity across Turner Road at Lodi Lake.

In addition to the information requested by Council, staff has contacted the Parks and Recreation Department to determine if a visibility screen can be added to the 500' of chain link fence along the beach area. The visibility of sun bathers in the upper beach area is a distraction and could be related to accidents in the area, especially rear-end accidents. The Parks Department has reviewed this suggestion and agrees that a visibility screen is reasonable. However, the shallow footing of the fence posts and the post thickness is not adequate to handle the additional wind load created by full screening. The Parks Department will install some test sections of alternating slats to see if something short of full screening will be adequate in the hopes of avoiding replacing the entire fence. Council will be kept abreast of this situation.

RECOMMENDATION: Staff recommends the approval of the Turner Road speed survey and the flashing beacon installation. Upon approval, staff will expedite the speed limit signing and flashing beacon installation as the beach area is scheduled to open on Memorial Day weekend (May 25).

FUNDING: Flashing beacon - Transportation Development Act Fund - \$5,000 Speed limit and pedestrian signing and pavement legends - Street Maintenance Account

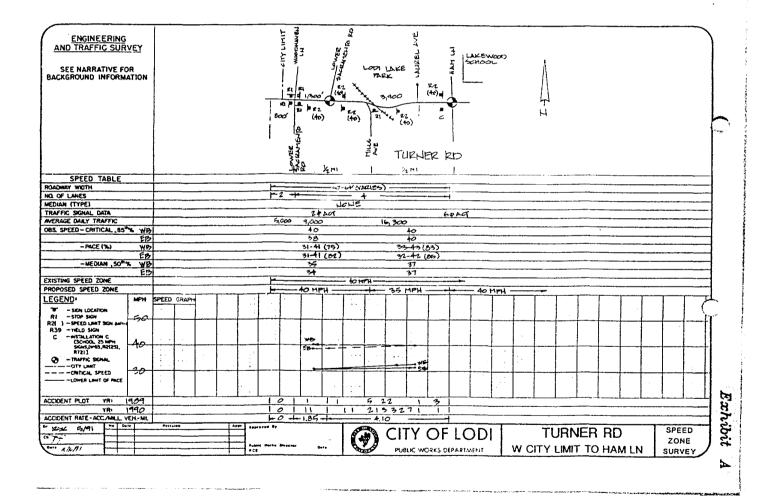
Public Works Director

Prepared by Richard C. Prima Jr., Assistant City Engineer, and Rick S. Kiriu, Senior Engineering Assistant

JLR/RSK/mt Attachments

cc: Police Chief

Street Superintendent Assistant City Engineer Assistant Civil Engineer-Traffic Parks and Recreation Director Park Supervisor - Frank Pepper Concerned Citizens



SPEED ZONE REPORT - Turner Road, West City Limit to Ham Lane

REFERENCE - Speed zone surveys are performed in the City of Lodi following State of California Department of Transportation (Caltrans) guidelines in accordance with Section 4802(b) of the California Vehicle Code. These guidelines are outlined in Chapter 8 of the Caltrans Traffic Manual.

° STUDY

Important factors to consider in determining the speed limit which is most appropriate to facilitate the orderly movement of traffic and that is reasonably safe are prevailing speeds, unexpected conditions to drivers, and accident records.

Prevailing Speeds (85th Percentile Speeds) - Reasonable speed limits conform to the actual behavior of the majority of motorists, and by measuring motorists' speeds, one will be able to select a speed limit that is both reasonable and effective. Speed limits should normally be established at the first five mile per hour increment below the 85th percentile speed. However, in matching existing conditions with the traffic safety needs of the community, engineering judgement may indicate the need for a further reduction of five miles per hour.

The following prevailing speeds have been measured in the segments shown:

SEGMENT	WESTBOUND	EASTBOUND
West City Limit to Lower Sacramento Road (North)	40 mph	38 mph
Lower Sacramento Road (North) to Ham Lane	40 mph	40 mpin

Unexpected Conditions

When roadside development results in traffic conflicts and unusual conditions which are not readily apparent to drivers, speed limits below the 85th percentile are warranted. The following factors were considered: roadway design speed, safe stopping sight distance, superelevation, shoulder conditions, profile condition, intersection spacing and offsets, commercial driveway characteristics, and pedestrian traffic in the roadway without sidewalks.

In reviewing the area from Mills Avenue to Loma Drive, some of the south side does not have sidewalk and there is pedestrian activity from Lodi Lake Park. This is not readily apparent to drivers traveling eastbound. Roadside development in the area consists of the Lodi Lake Park and the drive-in across the street. Due to the lack of a food vendor in the park, there is a large number of pedestrians crossing Turner Road.

There are a number of residential driveways and the lake entrance and exit on Turner Road. Visibility from these driveways is often reduced due to on-street parking. The effects of the above are included in the recommendation to reduce the speed limit.

Accidents

Accident records of the two most recent years should be considered when determining speed zones. Accidents on segments of roadways are classified by their accident rate. Accident rates are determined by the number of accidents occurring within a segment of roadway and the traffic volume within that segment. Accident rates are shown in accidents per million vehicle miles (ACC/MVM).

The current accident rate of 4.10 ACC/MVM in the segment of Turner Road from Lower Sacramento Road (north) to Ham Lane has nearly doubled from the 2.30 ACC/MVM calculated in the 1989 speed zone survey. Traffic volumes in this segment have increased from 13,700 to 16,300 vehicles per day and accidents have increased from 17 to 36. The majority of these accidents were rear-end collisions, which are speed-related.

The accident rate in the segment of Turner Road from Lower Sacramento Road/Woodhaven Lane to Lower Sacramento Road (north) has decreased from the 2.75 ACC/MVM calculated in the 1989 speed zone survey to the current 1.85 ACC/MVM.

RECOMMENDATION - Based solely on the 85th percentile speeds observed in the field, the posted speed limit from the west City limit to Ham Lane could be 40 mph. However, considering the described conditions not readily apparent to the driver and the increased accident rate, it is recommended to reduce the speed limit to 35 mph from Mills Avenue to Ham Lane. The existing and recommended speed limits are shown below.

TURNER ROAD SEGMENT	EXISTING	RECOMMENDED
West City Limit to Mills Avenue	40 mph	40 mph
Mills Avenue to Ham Lane	40 mph	35 mph

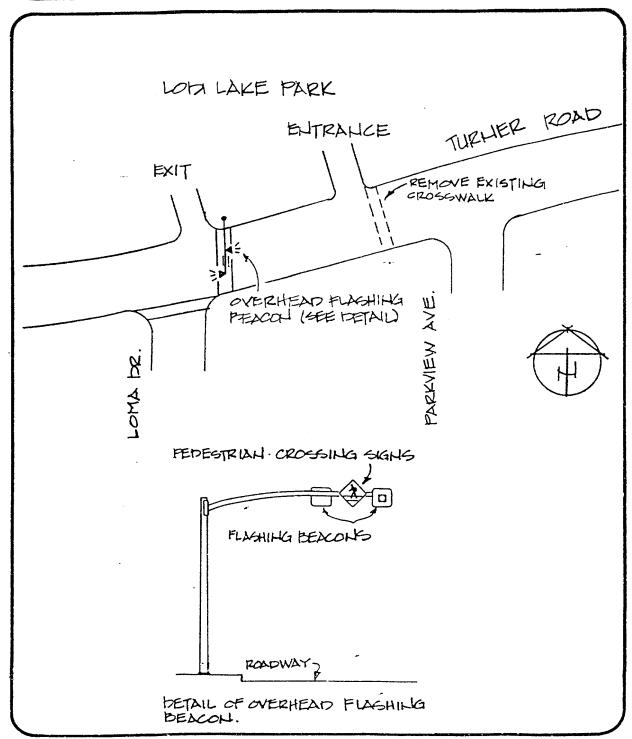
Jack L. Ronsko Public Works Director

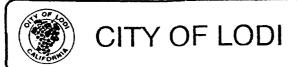


CITY OF LODI

PUBLIC WORKS DEPARTMENT

TURNER ROAD @ LODI LAKE PARK FLAGHING BEACON PLAN





COUNCIL COMMUNICATION

AGENDA TITLE: Turner Road - Lodi Lake Park Traffic Study

MEETING DATE: March 6, 1991

1

PREPARED BY: Public Works Director

RECOMMENDED ACTION: That the City Council review the following study and take the

appropriate action.

BACKGROUND INFORMATION: The Public Works Department has received a number of

complaints over the last year concerning speeding and pedestrian safety on Turner Road in the vicinity of Lodi Lake. Parks Department staff has also complained about

difficulty exiting the park. Due to the number of complaints, staff has studied this segment of Turner Road. The following contains recent actions and other

information concerning Turner Road at Lodi Lake.

In June of 1990, pedestrian crossing signs and pavement markings were installed adjacent to the crosswalks in front of the park. Although the additional pedestrian safety created by these signs is minimal, they were an immediate interim action until a study could be completed. Because the park facilities that generate pedestrian activity are in operation for such a short period of time during the year, special considerations have to be made. The beach area is a major pedestrian generator at the park. It opens on the Memorial Day weekend (end of May) and closes on Labor Day (beginning of September). The daily hours of operation are noon to 6:00 p.m. The only other major pedestrian-generating events are the 4th of July activities and the boat races held on the Sunday before the 4th of July. Pedestrian activity across Turner Road at other times of the year is minimal. The Parks and Recreation Director has informed us that we can expect increased pedestrian activity to the drive-in on the south side of Turner Road due to the closing of the concession stand in the park.

Existing Conditions

Accident History

Available accident records indicate that 31 accidents occurred in this segment from 1987 to the present (Exhibit A). One of these accidents involved a pedestrian, although numerous "near misses" have been reported by the owner of the drive-in on the south side of Turner Road. This pedestrian accident occurred on September 2 of 1990. It involved a child almost 3 years old who emerged from between parked cars approximately 270 feet west of Laurel Avenue and was struck by a westbound vehicle. This accident did not occur at a crosswalk and was not speed-related. Of the 31 total accidents occurring in this segment, 18 were

APPROVED. Thos. d. Sileison

THOMAS A. PETERSON City Manager

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Turner Road March 6, 1991 Page 2

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rear-end accidents. Nearly all occurred during daylight hours and 12 of the 18 accidents occurred during the period when the beach area was open. These accidents are generally considered speed-related and are often caused by the inattention of drivers. Distractions caused by the park and the curve in the roadway could be contributing factors. Other accidents occurring in this segment were left-turn and parking maneuvers. Only one accident was a right angle.

° Traffic Volumes/Speed Limits

Traffic counts taken in 1990 indicate that volumes in this area have increased by approximately 20% since 1988. The current two-way volume is 16,300 vehicles per day. Some of this increase may be due to the commercial development on West Turner Road (Woodlake Plaza) and residential development in the Woodbridge area. The existing speed limit of 40 mph was approved in January of 1989 based on an engineering and traffic survey and is radar enforceable. The previous speed limit was 35 mph.

Pedestrian Activity

Pedestrian movement counts across Turner Road were performed while the beach area was open on Tuesday, July 24, and Saturday, July 28, of 1990. The survey was performed between the hours of 11:30 a.m. and 6:30 p.m. The results of the survey are shown below.

Crosswalk Location	Tues 7/24	Sat 7/28	
Lake Entrance Lake Exit	84 77	94 182	
Total Pedestrians	161	276	

Alternatives

o Traffic Signal

To provide the maximum safety for pedestrians, a traffic signal across Turner Road at Loma Drive was requested by some citizens. However, the cost of signal installations are high (approximately \$100,000) and there are a number of locations that have a greater need. In addition, Caltrans traffic signal warrants are not satisfied under the existing conditions and the volume split of 94%/6% is inappropriate for four-way stops.

A request was also received for pedestrian activated crossing signals. Staff does not recommend this type of installation due to the high cost and reduced benefit. The cost of this type of installation would not be much less than a traffic signal.

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° Speed Reduction

Recent legislation (effective January 1, 1990) amending the California Vehicle Code (Section 22357.1) provides for the decrease of speed limits near children's playgrounds. This section states that local authorities may, by ordinance or resolution, set a prima facie speed limit of 25 miles per hour on any street, other than a State highway, adjacent to any children's playground in a public park, but only during the particular hours or days when children are expected to use the facilities.

The State has not established any standards for signing this reduced speed limit. Variable message signing could be used if the speed limit is not in effect year-round. This type of signing is only visible when the speed limit is in effect and would be controlled by a programmable time clock.

Another alternate would be to sign the street similar to a school zone - "25 mph when children are present". This would require discretion and judgement on the part of both the driver and enforcement personnel. The pedestrian activity is spread out through the day, which differs from a school with specific opening and closing times.

The Police Chief has expressed serious doubt as to the practicality of enforcing a 25 mph speed limit in this area. Based on this and experience on Turner Road and other streets, staff feels a 25 mph limit would not be observed and would be inappropriate.

° Flashing Beacon

A flashing yellow beacon emphasizing the pedestrian crossing signs could be used at this location. Although not applicable here, the warrants for a flashing beacon are satisfied under the "school area pedestrian safety" section of the Caltrans Traffic Manual (Exhibit B). Cost estimates provided by the Utility Department show that overhead installation will cost \$2,500 to \$3,500 and post-mounted installation will cost approximately \$6,000 due to the underground work necessary. The beacon would be controlled by a time clock.

Adult Crossing Guard

Caltrans warrants for an adult crossing guard at a school crossing are also satisfied. However, due to hours required to provide adequate pedestrian coverage, City staff does not consider this a viable alternative. Also, the Caltrans Traffic Manual indicates that a flashing yellow beacon should not be used if an adult crossing guard is provided.

Turner Road March 6, 1991 Page 4

° No Parking Zone

In order to provide adequate sight distance for drivers exiting the lake, 145 feet of additional "No Parking" is needed on the north side of Turner Road west of the lake exit (Exhibit C). This would remove space for parking approximately 6 to 7 cars. Vehicles have been observed parking in this area primarily during beach use hours. Due to the curve in Turner Road, it is difficult for drivers exiting the lake to see oncoming eastbound vehicles.

° Left Turn Lane

Due to the number of rear-end accidents in this segment, the effect of adding a two-way left turn lane in front of the lake entrance has been studied. A two-way left-turn lane would reduce rear-end accidents and the additional "No Parking" needed to accommodate the additional lane would reduce congestion in the area (Exhibit D). This would remove space for parking approximately 25 cars.

Recommendations

° Speed Limit

While it may seem desirable to reduce the speed limit to 25 mph in front of the park, staff feels it would be an empty gesture and misleading to pedestrians since it will not be observed by drivers and is impractical to enforce.

° No Parking

Staff feels that extending the "No Parking" zone west of the lake exit is necessary to provide adequate sight distance and should be installed regardless if anything else is done.

° Two-Way Left Turn

The installation of a two-way left-turn lane is recommended to reduce rear-end accidents and improve visibility at the crosswalks and other driveways in the area. However, the loss of on-street parking may encourage more parking in the neighborhood south of the park. Also, some locations in this area have no sidewalk. Council may wish to require the installation of sidewalk by the property owners in these areas (Exhibit D).

° Flashing Beacon

Staff does not have enough data from other locations in Lodi to make a firm recommendation on the effectiveness of flashing beacons. Since the cost is relatively low, it would be reasonable to install one.

Turner Road Màrch 6, 1991 Page 5

FUNDING: Curb Markings - Street Maintenance Account Other Work - To be determined

Jack L. Ronsko Public Works Director

Prepared by Richard C. Prima Jr., Assistant City Engineer, and Rick Kiriu, Senior Engineering Technician

JLR/RSK/mt

Attachments

cc: City Attorney Police Chief Assistant City Engineer
Assistant Civil Engineer-Traffic
Parks and Recreation Director Concerned Citizens

RESOLUTION NO. 91-94

A RESOLUTION OF THE LODI CITY COUNCIL

AMENDING TRAFFIC RESOLUTION NO. 87-163 TO APPROVE THE SPEED

ZONE SURVEY FROM THE WEST CITY LIMITS TO HAM LANE,

REDUCING THE SPEED LIMIT BETWEEN MILLS AVENUE AND HAM LANE

AND APPROVING THE INSTALLATION OF AN OVERHEAD FLASHING BEACON

AT THE CROSSWALK IN FRONT OF LODI LAKE PARK, AND

APPROVING THE APPROPRIATION OF FUNDS THEREFOR.

BE IT RESOLVED, that the Lodi City Council does hereby approve the Speed Zone Survey from the West City Limits to Ham Lane, attached hereto as Exhibit A; and

RESOLVED, by the Lodi City Council that City of Lodi Traffic Resolution No. 87-163, Section 7 - Speed Limits - is hereby amended to reduce the existing speed limit between Mills Avenue and Ham Lane from 40 mph to 35 mph, as indicated in the Speed Zone Survey; and

RESOLVED, that the Lodi City Council hereby approves the installation of an overhead flashing beacon at the crosswalk in front of Lodi Lake Park, as shown on Exhibit B attached hereto; and

BE IT FURTHER RESOLVED, the Lodi City Council hereby approves the appropriation of \$5,000 for the estimated cost of the installation of the flashing beacon, which funds are to be allocated from Transportation Development Act (TDA) funds.

Dated: May 15, 1991

I hereby certify that Resolution No. 91-94 was passed and adopted by the City Council of the City of Lodi in a regular meeting held May 15, 1991 by the following vote:

Ayes:

Council Members -

Pennino, Pinkerton, Sieglock

Snider and Hinchman (Mayor)

Noes:

Council Members - No

None

Absent:

Council Members - N

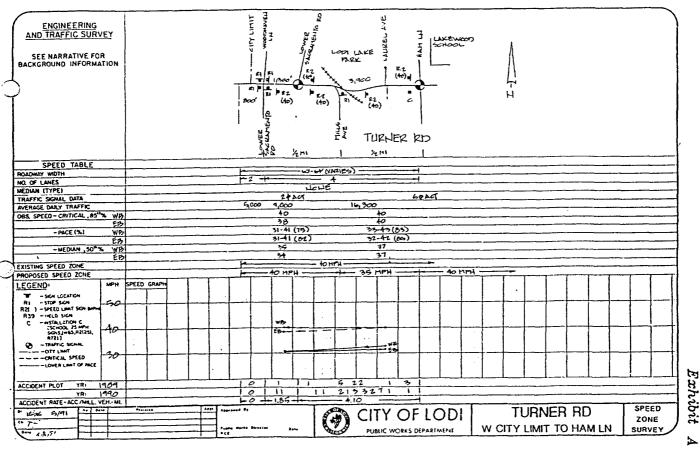
None

Wice M. Reimche

City Clerk

91-94

RES9194/TXTA.01V



Exhibit

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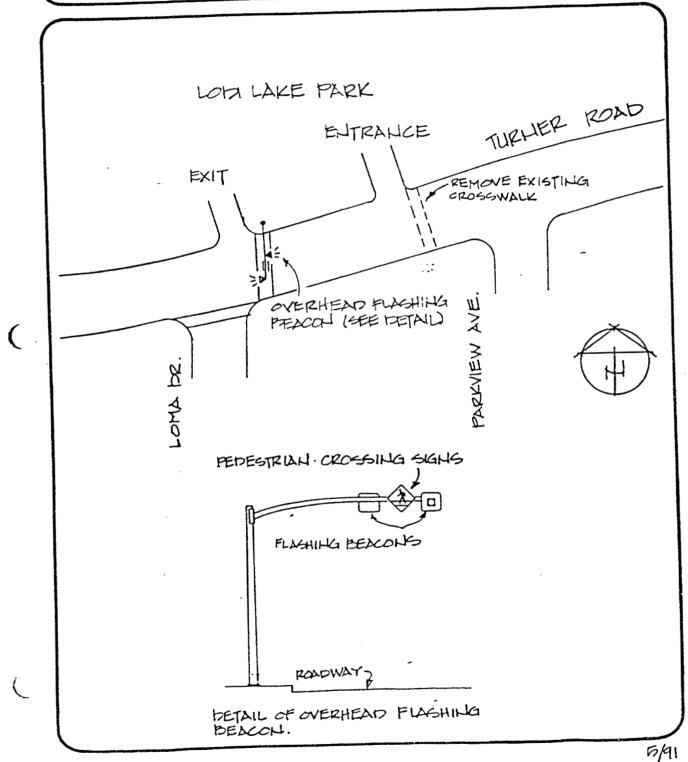
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Jack L. Ronsko Public Works Director



TUEHER ROAD @ LODI LAKE PARK FLAGHING BEACON PLAN



CITY OF LODI SPECIAL ALLOCATION REQUEST

TO:	Finance Director			DATE:	May 15, 1	1991
FROM:	City Clerk			PROJEC	CT NUMBER:	124.0-501.01-506
	it is made for fu urrent budget:	nds to accor	mplish the	following p	roject whi	ch was not included in
Desc	ription of Projec	t			Estin	nated Cost
Fundir Turner	ng for installatio • Road and Lodi La	n of flashir KR Park	ng beacon	to be instal	led in area	a of
Fundir	ng source - Transp	oration Dev	elopment A	ct Fund - \$5	,000	
	(If you need	more space,	use addit	ional sheet	and attach	to this form)
	of Approval - 5/1	5/91	Amount . Cit	Approved - y Manager	\$5,000.00	
	FUND OR	ACCOUNT TO E	BE CHARGED			
Curren	nt Budget	\$		_ Prior Ye	ar Reserve	\$
Contir	ngent Fund	\$	Conera	Fund Surplus	s \$	V
Capita	al Outlay Reserve	\$		Reimburs	able Accour	nt_\$
Utilit	ty Outlay Reserve	\$		Other (E	Mpor OEU. lection) -	\$ 24 000
Hotel/	'Motel Tax Reserve	· -				
Genera	al Fund Operating	Reserve		Accoun	t Number	
Robert	ent Jeffel. H. Holm, Finance	Director		Alice M. City Cle	h. Reimche,	mehe
	t this form in dup follows:				Distributi Finance De	ion after approval will epartment

CITY COUNCIL

DAVID M. HINCHMAN, Mayor JAMES W. PINKERTON IT Mayor Pro Tempore PHILLIP A. PENNINO JACK A. SIEGLOCK JOHN R. (Randy) SNIDER

CITY OF LODI

CITY HALL, 221 WEST PINE STREET P.O. BOX 3006 LODI, CALIFORNIA 95241-1910 (209) 334-5634 FAX (209) 333-6795

May 9, 1991

THOMAS A PETERSON City Manager

ALICE M REIMCHE City Clerk

BOB McNATT
City Attorney

SUBJECT: Turner Road - Lodi Lake Park Traffic Study

Enclosed is a copy of background information on an item that will be discussed at the City Council meeting on Wednesday, May 15, 1991, at 7:30 p.m. The meeting will be held in the City Council Chamber, Carnegie Forura, 305 West Pine Street. You are welcome to attend.

If you wish to communicate with the City Council, please contact Alice Reimche, City Clerk, at (209) 333-6702.

If you have any questions about the item, please call Richard Prima or me at (209) 333-6706.

Jack L. Ronsko

Rublic Works Director

JLR/mt

Enclosure

cc: City ClerkV